Butterfly and other Invertebrates Club Newsletter

Issue no: 2 Date: April 1996 ISSN: 1326-0006

Office Bearers 1996

President: Helen Schwencke 07 3844 6677
Treasurer: Rob MacSloy 07 3824 4348
Secretary: Georgina John 07 3349 1967
Newsletter: Daphne Bowden 07 3396 6334
Librarian: Terri Wolf 07 3814 3841
Register of host plants: Rob MacSloy 07 3824 4348

Contact Address

PO Box 5170, West End, 4101 Queensland

Aims of Organisation

- To establish a network of people growing butterfly host plants;
- To hold information meetings about invertebrates;
- To organise excursions around the theme of invertebrates, eg. butterflies, fireflies, ants, dragonflies, beetles, freshwater habitats, and others;
- To promote the conservation of invertebrate habitat;
- To promote the keeping of appropriate invertebrates as alternative pets;
- To promote research into invertebrates;
- To encourage the construction of invertebrate friendly habitat in urban areas.

Newsletter Deadlines

If you want to submit an item for publication the following deadlines apply:
February issue - January 21st; May issue - April 21st;
August issue - July 21st; November issue - October 21st

Acknowledgements

We would like to thank Mr Andrew Peachey for his drawings of the cicada and dragonfly which appear in this edition.

Editorial

Welcome to the second issue of our newsletter. We hope you like it. Our first issue drew some detailed response and resulted in our first letter (see letters to the editor). A few acknowledgements are appropriate. Our thanks to Wendy Hughes for her wonderful drawing which will appear on our front cover. Also to Daphne and Georgina who have patiently sat through several hours with me while we sorted out our format, (and the pain caused by computer crashes). We hope to use the newsletter to help our club grow, so please show it to friends, to your local & school library, anywhere where you think we have an audience.
In this issue we have been able to build on several sections, and we look forward to your input to make this a useful newsletter.

Helen Schwencke

In this issue

Letters to the Editor page 2

Cicadas

Report of Address by John Moss page 4

Excursion Reports

Dragonflies and Damselflies page 7
Leyburn page 9

Creature Notes #2

Chequered Swallowtail page 11
Library books for loan page 12
Books for sale page 12
Plants for sale page 12
Ads and Exchanges page 12
Club meeting and excursion programme page 13
Membership details page 13

Letters to the Editor

Dear Daphne,

Some feedback for you, and some suggestions which may or may not be practical ......

LOVED the artwork on the newsletter (shall file them for reference.) Some things I'd love to see:-

Q & A section with illustrations if possible.

Recommended textbooks for reference - a good comprehensive illustrated book on garden pests with illustrations or drawings of all stages of life cycle - for instance, I know most of the pests but don't know which nymphs / grubs etc. or eggs correspond; I'd like to retain immature forms or eggs of beneficial species, but don't know what they look like, eg. mantids, predatory wasps, tachinid flies.

Where to buy host-plants. (Where did Frank Jordan get his?)

Is his garden open to sympathetic visitors at any time? (it sounds fascinating).

Lastly the best textbook to buy on our local butterflies; I have a pocket book which only illustrates mature forms, and Densey Clynes' book about attracting butterflies; good, but not many species illustrated. To confuse things, the caterpillars change colour - so far as I can see, the orchard butterfly caterpillar changes colour once, and the pupae once too.

We've only got a small garden, but I try to only grow native species & herbs; I won't spray, but find manual control of the lots of grasshoppers seems to work very adequately. And the chooks love the snails we collect!

Congratulations. I don't think I can get to meetings so would enjoy details of talks in the newsletter.

Sincerely, Tessa Hutton

Some answers:

- A question and answer section sounds good, perhaps it can also be rolled into Letters to the Editor, we'll have to see how things develop.

- An illustrated book on garden pests - "Friends and Foes of Australian Gardens" by F.D. Hockings, published by Reed in 1980, is a good place to start, though it is far from comprehensive. I'm not sure if it is still in print, however, it should be able to be made available through your local library. Perhaps other club members have suggestions.
- Where do you get host plants (and where did Frank Jordan get his)? The problem is that many host plants are not readily available in plant nurseries, they are fairly obscure. It's more a matter of finding someone who has the plant you want and swapping or sharing. This is one of the reasons for having the club. Rob MacSloy is compiling a register of who has which plants. We need to be building up demand so that eventually plant nurseries see a reason for stocking them as has happened with the Birdwing vine. Frank obtained his plants over many years in a) mainstream nurseries, b) specialist native plant nurseries, c) seed catalogues, d) Society for Growing Australian Plants, especially their September and May plant sales, e) swapping with other butterfly enthusiasts. One of the benefits of the club is that once someone finds out where to get a particular plant, this information can be shared.
- Is Frank's garden open? The excursion is May will start at Frank & Helen's, see programme.
- The best textbook to buy on our local butterflies? Common & Waterhouse's "Butterflies of Australia" is the best book to buy. It covers nearly every Australian butterfly. Maps show the known distribution of each species, so by a process of elimination you can locate those in your area. Some caterpillars are illustrated. This book is rather expensive, and a new thoroughly updated version is due out fairly soon. Your local bookshop should be able to order it. Many of the other more interesting books on butterflies are out of print. Frank and I (Helen) are currently working on a book covering the food plants and whole life cycles of about 60 butterflies.

Helen Schwencke

Cicadas

by John Moss

Report of a talk on 22nd February, 1996 at the Downfall Creek Bushland Education Centre.

History

Cicadas were not among the insects collected by Joseph Banks, although it wasn't long after settlement that specimens were collected and sent back to Europe. Being obvious, noisy summer creatures they were soon noticed, especially at Farm Cove and Port Phillip Bay where some of the larger more obtrusive species occurred. In 1834 the first Australian cicada was described as *Cicada moerens* by a German taxonomist, Germar. When the Linnean nomenclature for naming animals and plants was expanded, this later became *Psaltoda moerens* (Germar).

In the mid to late 1800's a British entomologist, Mr. F. Walker, worked on cicadas including a few Australian species. Unfortunately this work was poor by any standards (especially today's) as some species were described from one specimen only (and some damaged or discoloured), and later redescribed under another or several names. The reverse also occurred where several species were lumped under the one name.

In the late 1800's and early 1900's, W. L. Distant at the British Museum described several more Australian species, again unfortunately from one or too few specimens and, to compound the problem some early Australian entomologists, namely, Dr. F. W. Goding in Melbourne and Walter W. Froggatt in Sydney, also described species, some being re-description under different names of already described species. It was many years before all these confusing errors were to be ironed out.

In 1904 a Monograph on Australian Cicadas was published by Goding & Froggatt which described 119 species. Following this, no major work was done until the 1950's when Alexander Burns, Curator of Entomology at the National Museum of Victoria described a few dozen more cicadas, and published in 1957, a checklist of Australian Cicadidae, listing about 200 species, some of which have since proved to be synonyms.

The most recent works on cicadas were Prof. Tony Ewart's revision of the Queensland Pauropsalta, published in 1989, wherein he described several new species, and Max Moulds' book "Australian cicadas", published in 1990, which is the current treatise from both a popular and scientific viewpoint. Even though both Tony and Max described new species, they also 'sank' some old ones as synonyms. Thus the total of described species today stands at about 220 species. There are many more, still being worked on, awaiting description, and probably the total Australian fauna will eventually prove to be about 400 species.

Taxonomy

Cicadas belong to the Class Insecta, Order Hemiptera, Suborder Homoptera, Superfamily Cicadoidea which contains 4 families of which only Cicadidae and Tettigarctidae occur in Australia, the latter being endemic. Fossil studies show that cicadas were amongst the earliest winged insects to appear on the earth, emerging about 400 million years ago.

Abbreviated Life History

Cicadas start life as eggs laid in slits in the bark of branches and twigs. The larvae drop to earth and burrow down until a tree root is reached on which they attach themselves. They soon metamorphose into a first instar nymph which has a sucking apparatus similar to the adult. After some months or years (depending on the species) they emerge from the ground and complete their metamorphosis into the familiar adult.

Sound Making Apparatus

Male cicadas have a paired organ, the tymbal, located on either side of the upper thorax near where it joins the abdomen. Nervous impulses transmitted to the tymbal muscle cause the tymbal to buckle synchronously, emitting the familiar sounds. These sounds are amplified in the hollow abdominal chamber, which itself can be expanded to vary the amplitude and tome of the song.

Distribution

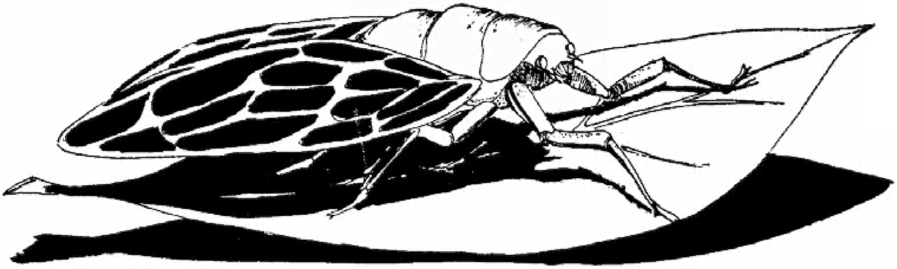
Cicadas can be found in Australia in nearly every type of natural habitat. Some species prefer open eucalypt forest, some wet or closed forests, some dry vine scrub, others semi-arid areas and even in alpine heath country. Several species have a very narrow restricted habitat, eg. on limestone outcrop vegetation and vine scrub on sandy substrate.

Display at meeting

John Moss showed those present several store-boxes with specimens collected in Australia and one glass topped display drawer of tropical Malaysian species which were impressive both for their large size and magnificent colours. At the other extreme were examples of tiny Australian grass cicadas which could easily have passed for flies or small bees. *Anapsaltoda pulchra* is Australia's largest cicada.

Song

Cicadas can be identified by the distinctive songs which are similar in some respects to other insects such as katydids and crickets, and with a few exceptions are distinctive for each species. John has tape recordings of many Australian species and most of those in his collection - some taped in the field and others in captivity. As time was limited we only heard a few of these as well as the songs of a few crickets and katydids. The mechanism of sound production in crickets and katydids is completely different from cicadas, and different from one another. Lack of time precluded a full discussion of these differences.



Excursion Report

Dragonfly Field Trip 3 February 1996,

by Ric Nattrass

Ten damselflies and 11 dragonflies making a good total of 21 species were observed at three separate sites. We spent most time at the first site and although rainforest habitat is traditionally considered more biologically diverse than most types we ended up seeing more species at the second site which was riparian but more open forest. The third site at Hayes Landing, Wivenhoe Dam turned up a further three species not seen at the previous site and which included the rather spectacular *Rhyothemis graphiptera.* The names which appear after the scientific names are NOT in any way officially recognised 'common names' but have simply been used in the hope that they might help to remind members who participated in the excursion of the species seen.

The trip seemed worthwhile for most, and for me the experience of seeing the breathtaking *Diphlebia coerulescens* never wears off so I'm a sucker for Northbrook Creek anytime. I'd like to thank everyone who attended.

Here is a list of the species seen and the sites visited:

Site 1. Northbrook Creek (Picabeen rainforest habitat).

Damselflies

Pseudagrion aureofrons (Goldface), *Austroargiolestes icteromelas* (Yellow-cheeked Ebony), *Diphlebia coerulescens* (Superb Blue Damselfly).

Dragonflies

Austroaeshna pulchra (Emerald-spotted Hawker), *Austrogomphus amphiclitis* (Yellow-chested Clubtail), *Choristhemis flavoterminata* (Yellow-tipped Stringtail), *Diplacodes haematodes* (Mick Hucknel- Simply Red), *Orthetrum villosovittatum* (Ruby Spindletail).

Site 2. Northbrook Creek (Open forest habitat).

Damselflies

Agriocnemis pygmaea (Pygmy Orangetail), *Austroagrion watsoni* (Greenstripe Bluetail), *Ceriagrion aeruginosum* (Rufous Damselfly), *Ischnura aurora* (Little Bluetail), *Ischnura heterosticta* (Spot-eyed Bluetail), *Pseudagrion aureofrons* (Goldface), *Pseudagrion microcephalum* (Bar-eyed Bluetail), *Nososticta solida* (Regent Damselfly)

Dragonflies

Diplacodes haematodes (Simply Red), *Orthetrum caledonicum* (Black-tipped Powderblue), *Orthetrum villosovittatum* (Ruby Spindletail).

Site 3. Hayes Landing, Wivenhoe Dam ('lagoon' habitat).

Damselflies

Ischnura heterosticta (Spot-eyed Bluetail), *Pseudagrion microcephalum* (Bar-eyed Bluetail).

Dragonflies

Crocothemis nigrifrons (Black-chested Powderblue), *Diplacodes bipunctata* (Twin-spotted Rusty), *Diplacodes haematodes* (Simply Red), *Orthetrum caledonicum* (Black-tipped Powderblue), *Rhyothemis graphiptera* (Golden Mottlewing).

(Editors note: Many thanks go to Ric for leading this fascinating and delightful excursion)

Leyburn Excursion

Saturday 16th to Sunday 17 March 1996 *by Rob MacSloy*

Fine and warm weather rewarded the 12 members (and 4 children) who made the 220km trip to Leyburn on the 16 &17th March. Lunch was had at (or more correctly outside) the Leyburn Hotel.

We moved on to the sports ground which some members had been tidied up for a campsite. The Small copper(Lucia limbaria), Chequered blue (Theclinesthes serpentata), Dark grass blue (Zizeera karsandra) and Tailed cupid (Everes lacturnus) were fairly common and other butterflies and a speckled day-flying moth were also seen. A larva and pupa of the Common eggfly (Hypolimnas bolina) were found.

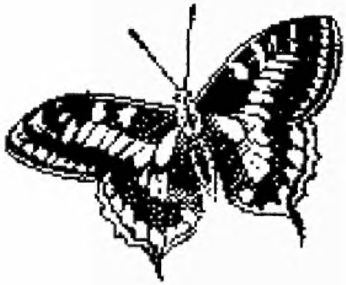
We then made our way to the various sites previously scouted out by members, but despite their stirling efforts only a small number of butterflies were seen - Cooktown azure *(Ogyris aenone)*, which is only found at Leyburn and in north Queensland, Amaryllis azure *(O. amaryllis)* and the Darling Downs jewel *(Hypochrysops piceatus)* which probably qualifies as Australia's rarest butterfly as it is restricted to the Leyburn/ Milmerran area and is usually only in very small numbers.

The best way to find these butterflies is by locating their larvae and attendant ants either under the bark and/or at the base of the host tree (or in the case of the *Ogryis* sp., their mistletoes' host tree). We were either too late in the season or the season had not been a good one. We were not able to find any larvae. On their scouting mission the previous weekend members had collected some larvae and attendant ants of the Genoveva azure *(O. genoveva)* which they were able to show the group. These were returned to their "home".

After a relaxing dinner and chat some members returned to Brisbane while the rest of the group, who were staying overnight, did some light trapping. A few moths, mantids and crickets came to the light, but in the absence of a good breeze to stir the insect life, the highlight of the evening as a water-holding frog *(Cyclorana sp.)* which decided to check out the commotion.

Those staying overnight made their way back home by various roads on the Sunday. A good spot for damselflies and dragonflies was found at the picnic grounds of the Leslie Dam (outside Warwick). On a follow-up trip the following Sunday, albeit a showery and overcast day, several species were identified including *Ischnura heterosticta, Pseudagrion aureofrons* and *Nososticta solida.* These 3 damselflies are pictured on page 56 of "Wildlife of Greater Brisbane".

All in all, a very pleasant trip with special thanks due to Bob and Judy Miller and Trevor for their preparations for the trip and their guidance and John Moss for his light trap.



Creature Notes #2

by Frank Jordan & Helen Schwencke

This year a few club members had the exquisitely beautiful Chequered Swallowtail *(Papilio demoleus)* butterfly breeding in their yards. Their secret? Easy! They were growing its local host Emu Foot *(Psoralea tenax)* . The Chequered Swallowtail is a tough butterfly, surviving quite well in inland Australia. Emu Foot is also tough, surviving as a weed in footpaths that aren't mown too often. The plant needs full sun and while it can survive with minimal water, with extra water it will produce more of those precious leaves. It grows easily, but slowly, from seed that has been soaked beforehand. An established plant will grow for many years, but will usually die back during winter. The Dragonfly field trip turned up some caterpillars on the edge of Somerset dam and I even found a caterpillar on a plant in a West End footpath. So, convert some of your lawn to Emu Foot, and get a closer view of this restless and energetic butterfly.

PS. Those sensible people who had informed our plant registrar that they had Emu Foot growing were able to share surplus caterpillars if they hadn't any themselves.

Library Books for Loan

The following books are currently available for loan at meetings, please contact Terri Wolf, ph. 3814 3841:
Australia's Butterflies by Peter Wilson
Butterfly Magic by Helen Schwencke & Frank Jordan
Australian Cicadas by Max Moulds

Books for Sale

Butterfly Magic by Helen & Frank @ $7.95 +.95c p&p (limited stock remaining)

Plants for Sale

. Society for Growing Australian Plants (SGAP)
Autumn Plant Sale , Sunday 28th April, 1996, 9am to 3pm
Grovely TAFE College, Fitzsimmons St, Grovely
Plant sales of hundreds of species of Australian plants, all of which should be suitable for Brisbane gardens. Some of these species will be rare and in short supply: so come early for the best choice.
Free admission. Light refreshments available.
(Ed. note: SGAP shows can be a good source of some rarer butterfly host plants.)

Ads and Exchange

Some times you may have an oversupply of legally obtained caterpillars of non restricted species and your food supply will not hold out. This may happen as a newsletter is being produced. What better place to advertise?
Give Rob MacSloy your plant list to also help the exchange of caterpillars.

Butterfly and Other Invertebrates Club Programme

Who / Guest Speaker: John Marshall
Theme: Freshwater invertebrates
When: Thursday, 25th April, 7.30pm
Where: Downfall Creek Bushland Centre, Rode Rd., McDowall

Excurson: Common Crow overwintering site & Frank & Helen's backyard
When: Saturday, 25th May, 1.00pm
Where: Meet Helen and Frank's, 11 Rogers St. West End, from there on to Toohey Forest for a walk to overwintering sites of the Common Crow assisted by Lorrie Davis
RSVP: Helen (07) 3844 6677

Who / Guest Speaker: Assoc Prof. Myron Zalucki, Dept of Entomology
When: Thursday 27th June, 7.30pm
Theme: How insect innards work (Insect physiology)
Where: Runcorn State School, cnr Mains & Beenleigh Rd., Runcorn, parking on Ardagie St.

What: Midwinter blues - no butterflies, a planning and info exchange meeting
When: Thursday 25th July, 7.30pm
Where: Runcorn State School, details above.

Membership Form

Name:...
Address;...
Suburb/Town:.............................. **State:** .... **Postcode:**...........
Phone:......................... **Fax:**...................... **Email:** ....

If you are employed in a relevant occupation, or have a specific area of expertise, please specify the occupation and organisation: ....
....

If your are subscribing on behalf of a School, please specify which School:
....

If you have a specific area of interest, please specify: ....
....
....

I have enclosed a cheque / money order for (please specify membership / subscription type): ☐ $10.00 Individual / School ☐ $15.00 Family made payable to **Butterfly and Other Invertebrates Club**

Are You a Member?

Please check your mailing label for the date your membership is due for renewal. If your membership is due, please renew as soon as possible. If your mailing label shows no date due, this is the last newsletter you will receive.

Butterfly and other **Invertebrates Club,**
c/- PO Box 5170,
West End, Q 4101

Next Meeting:

Freshwater invertebrates, a talk by John Marshall, at the Downfall Creek Bushland Centre, Rode Rd., Chermside, Thursday, 25th April, 1996